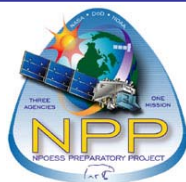


NPOESS Preparatory Project (NPP)

npoess.noaa.gov



Mission Objectives

To provide IPO with pre-operational risk-reduction demonstration

and validation for three of the critical NPOESS instruments, algorithms, and ground processing VIIRS, CrIS, OMPS and ATMS. Provide NASA with continuation of global change parameters after Earth Observing System (EOS) Terra and Aqua

- Atmospheric temperature and humidity sounding
- Sea surface temperature
- Land and ocean biological productivity
- Cloud and aerosol properties

Mission Characteristics

Instruments:

- Visible Infrared Imaging Radiometer Suite (VIIRS)
- Cross-track Infrared Sounder (CrIS)
- Advanced Technology Microwave Sounder (ATMS)
- Ozone Mapping and Profiler Suite (OMPS)

Launch: Q4 2009

Orbit: 824 km polar sun-synch, 1330 ascending node

Launch Site: Western Test Range

Mission Duration: 5 year/7.5 year consumables

NPP Contributions to NPOESS

Instrument Risk Reduction - Early delivery/instrument level test/system-level integration and test Provides lessons learned and allows for any required modifications in time to Support NPOESS first launch readiness

Ground System Risk Reduction

- Early delivery and test of a subset of NPOESS-like ground system elements

Early User Evaluation of NPOESS Data Products

- Provides algorithms/instrument verification and opportunities for instrument calibration/validation
- Allows for algorithm modification prior to NPOESS first launch

Responsibility Sharing*

IPO

Joint Program Management
VIIRS Instrument
CrIS Instrument
OMPS Instrument
Command, Communications, Control Segment (C3S)
Interface Data Processing Segment (IDPS)
Mission Operations

NASA

Joint Program Management
Mission systems engineering, integration, & test
ATMS Instrument
Spacecraft
Launch vehicle and associated activities
Science Data Segment (SDS)

Note: NOAA/NCDC is funding the Comprehensive Large Array Data Stewardship System (CLASS)

* As documented in NASA/NOAA/DoD Final Implementation Agreement, September 17, 2004

